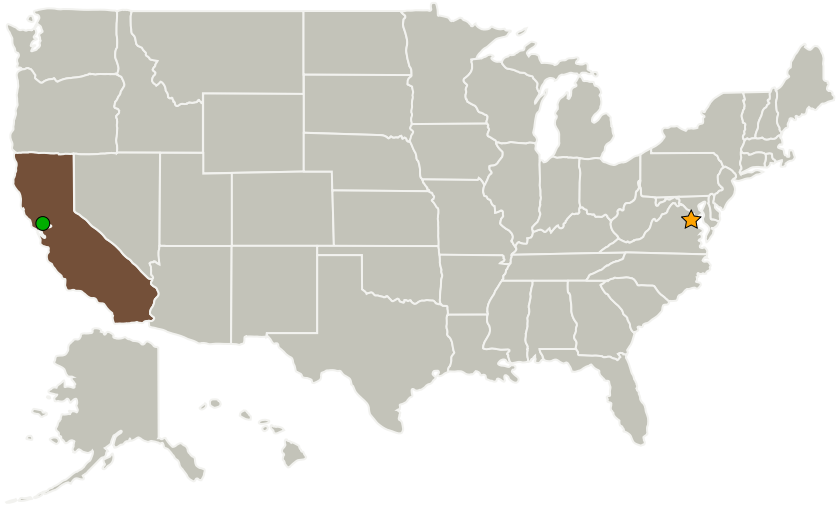
Fluid Lensing Airborne and Spaceborne Imager for Earth Science Applications

Completed Technology Project (2014 - 2015)

Project Introduction

Build two 1.5 U-Class sized imaging units (FluidCams) to meet the unique high-bandwidth requirements for 3D imaging at high-resolution with Fluid Lensing. Demonstrate FluidCam on an octocopter-based UAV to create a 3D map of a coral reef underwater and terrestrial target at sub cm-scale resolution. Advance the FluidCam technology to be compatible with a 6 U-Class for future remote sensing from Low Earth Orbit (LEO).

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
●Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California

Primary U.S. Work Locations
California

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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

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Project Management

Program Director:

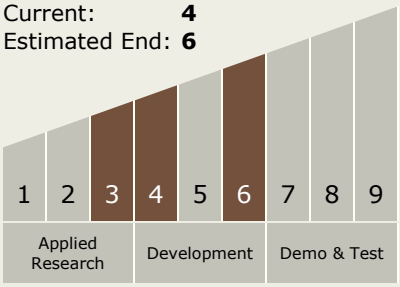
George J Komar

Principal Investigator:

Ved Chirayath

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **6**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.1 Detectors and Focal Planes

Target Destination

Earth